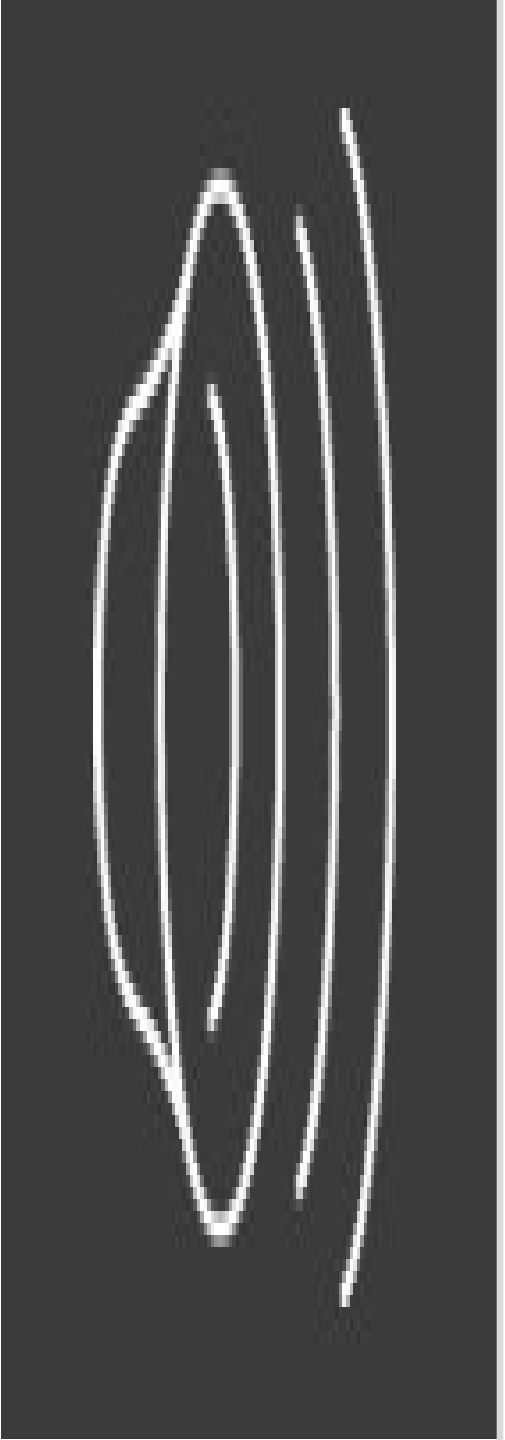
BEING PREPARED FOR
A NATURAL DISASTER



WELCOME

Objectives

- **Orientation to Emergency Preparedness & Operation Prepare**
- **Provide you with information and resources to better serve your family and community**

REMEMBER

Be Informed

Have a Plan

Make a Kit

Lt. GOVERNOR OF THE STATE OF HAWAII
BRIAN SCHATZ

Natural Disaster Preparedness

Natural Disaster Preparedness

When your State "calls",

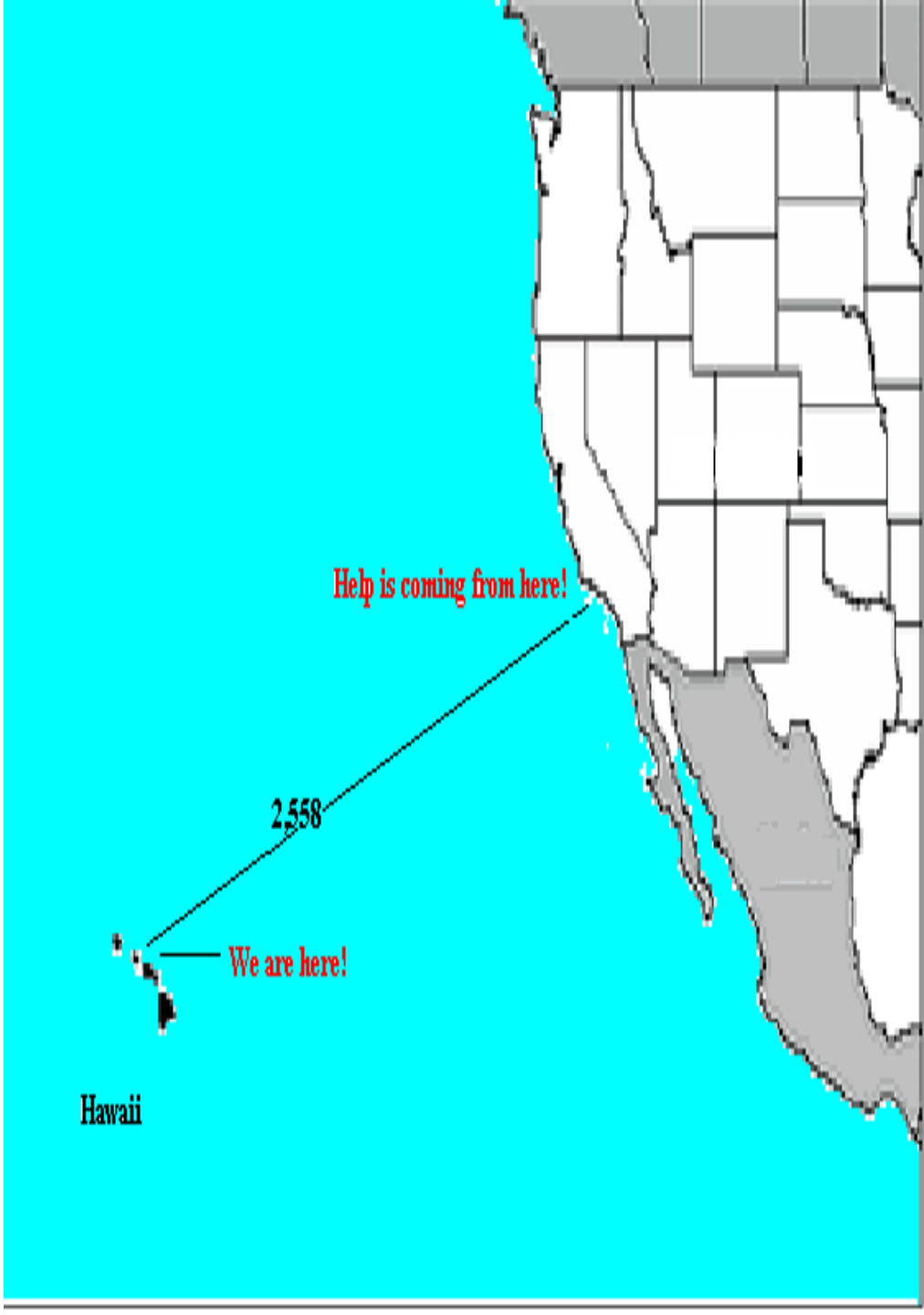
will your family be ready

with you? Or without you?

NATURAL DISASTER PREPAREDNESS

So why is preparedness so important in paradise?

- We live in a geographically isolated area
- We need to be self sufficient for <u>7 days!</u>
- 95% of all food and other supplies come in via container ship
- Oahu only has about <u>3</u>



Natural Hazards CAN Happen Here

Earthquake

Hurricane

Tsunami

Power Outage

Other Natural Hazards

Volcano

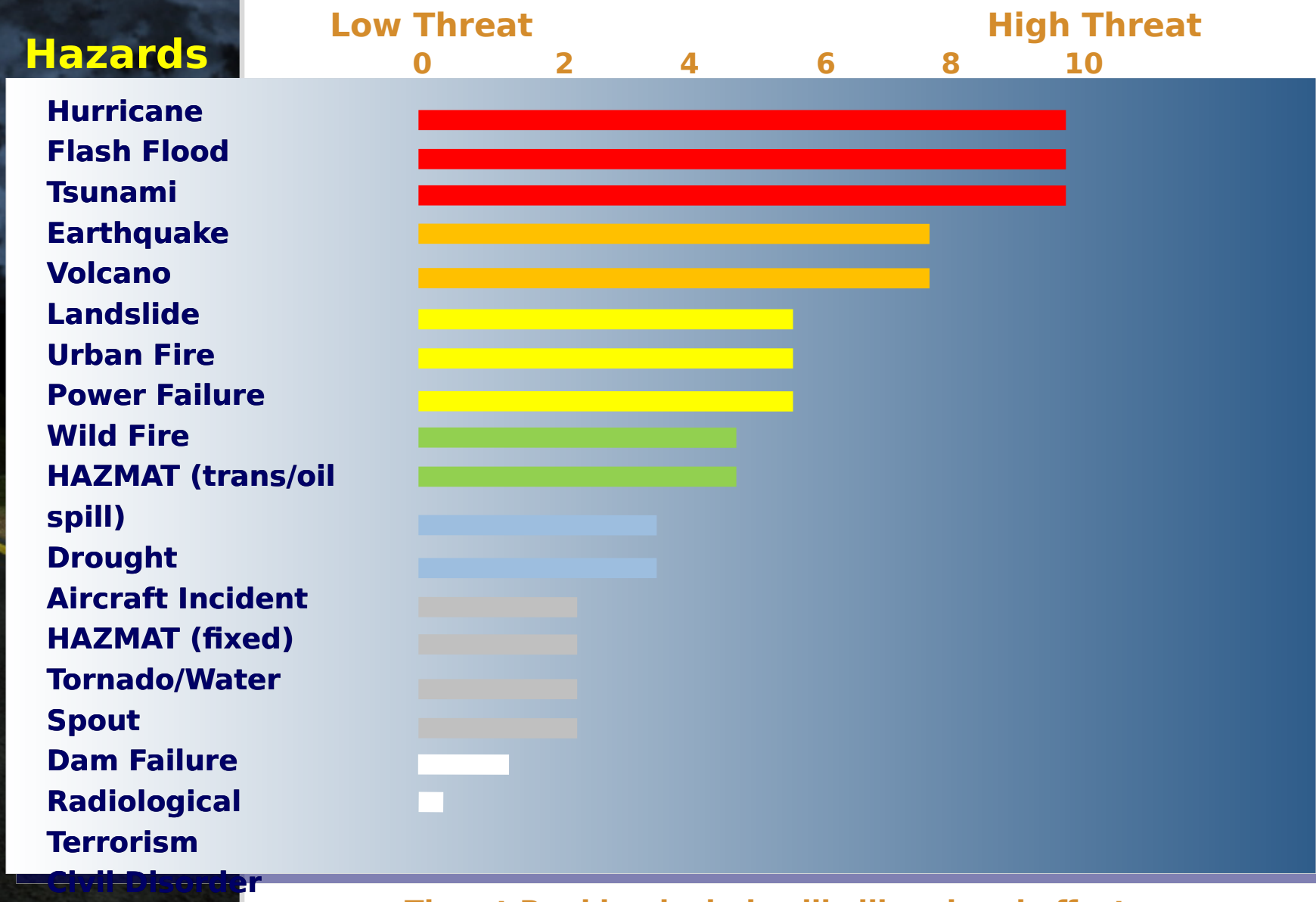
Wild Fire

Flood

Tornado

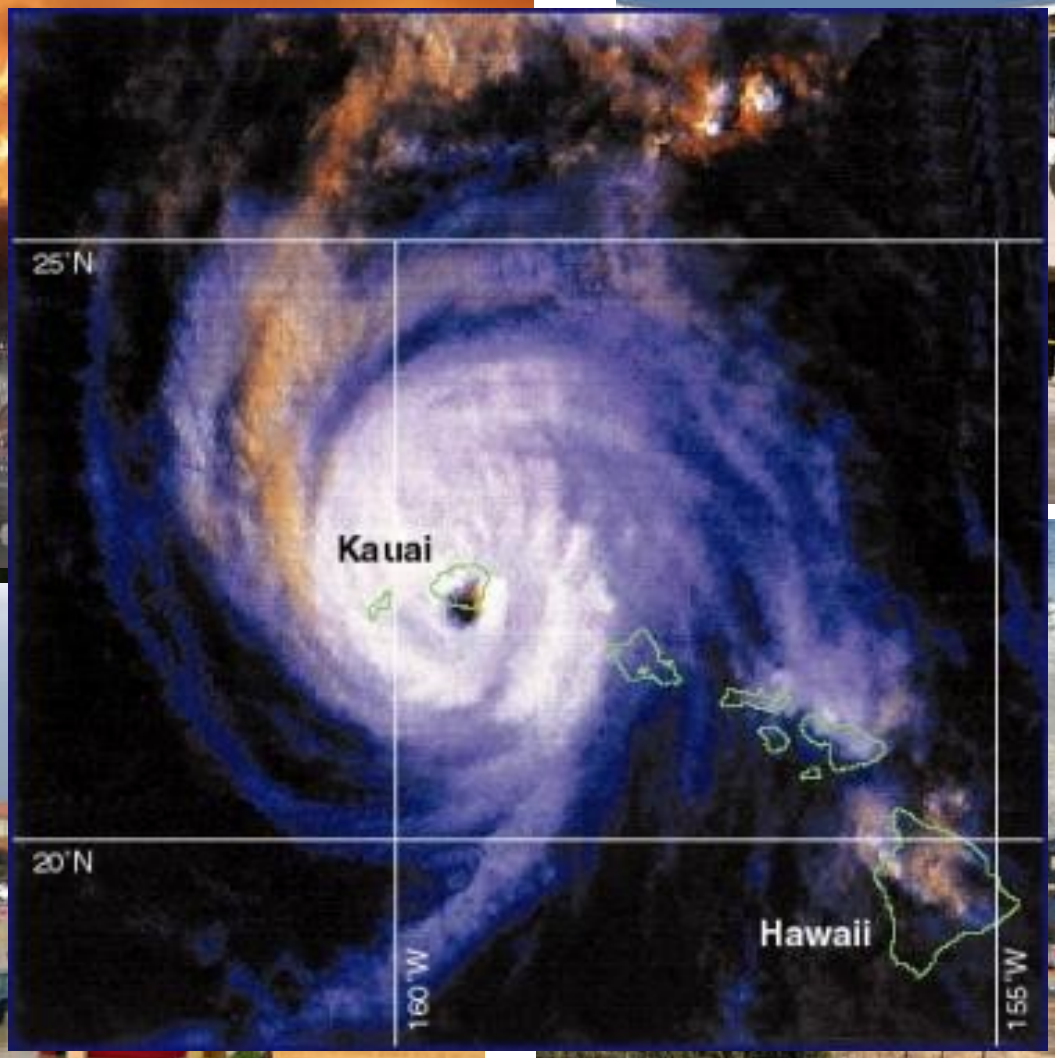
Land Slide

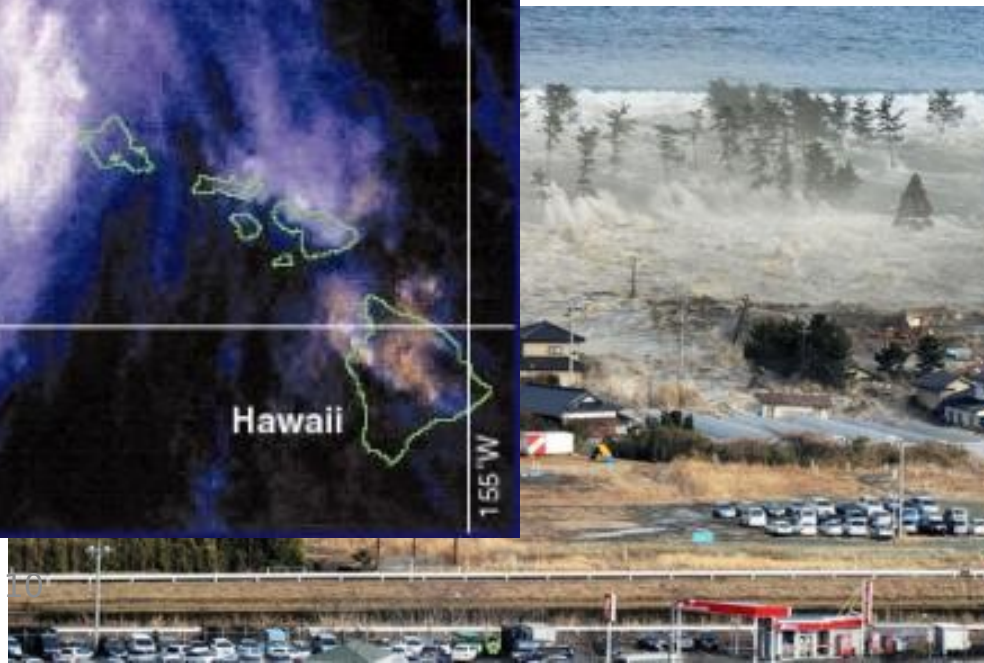
Hawaii's Hazard Profile



Threat Ranking includes likelihood and effect on

Be Informed: Emergencies Happen





Hurricane Preparedness

Tropical Storms Vs. Hurricanes

Tropical Depression – A rotary circulation of clouds and winds up to 38 mph

Tropical Storm – A rotary circulation of clouds and winds between 39–73 mph

Hurricane Watch – Threat of hurricane conditions within 36 hours

Hurricane Warning – Hurricane conditions expected within 24 hours

Hurricanes:
A Dangerous Triple Threat

High Winds

Mountainous terrain accelerates wind speeds

Winds increase on the back side of hurricane

Airborne debris severe injury or death

Heavy Rains and Flash Flooding

Tropical storms and even a weak hurricane can bring torrential rains and flash flooding

TURN AROUND DON'T DROWN

High Waves and Storm Surge

Greatest loss of life associated due to coastal inundation

Large ocean swells may reach Hawaii while hurricane is several hundred miles away

Hurricane Season

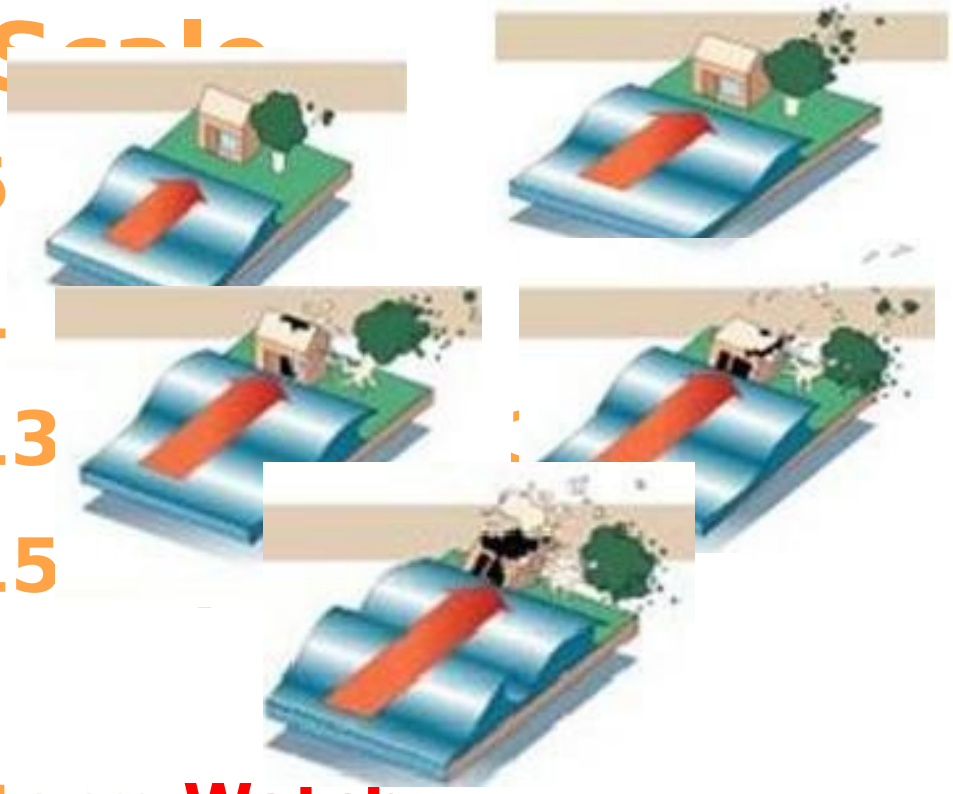
Hurricane season in Hawaii is 1 June through 30 November

Five major hurricanes have made landfall Hawaii since 1950

Hurricane Iniki was the last major hurricane on 9/11/92

Iniki c s and ge

Hurricane: Saffir-Simpson Scale



Category 1: 74-95

Category 2: 96-11

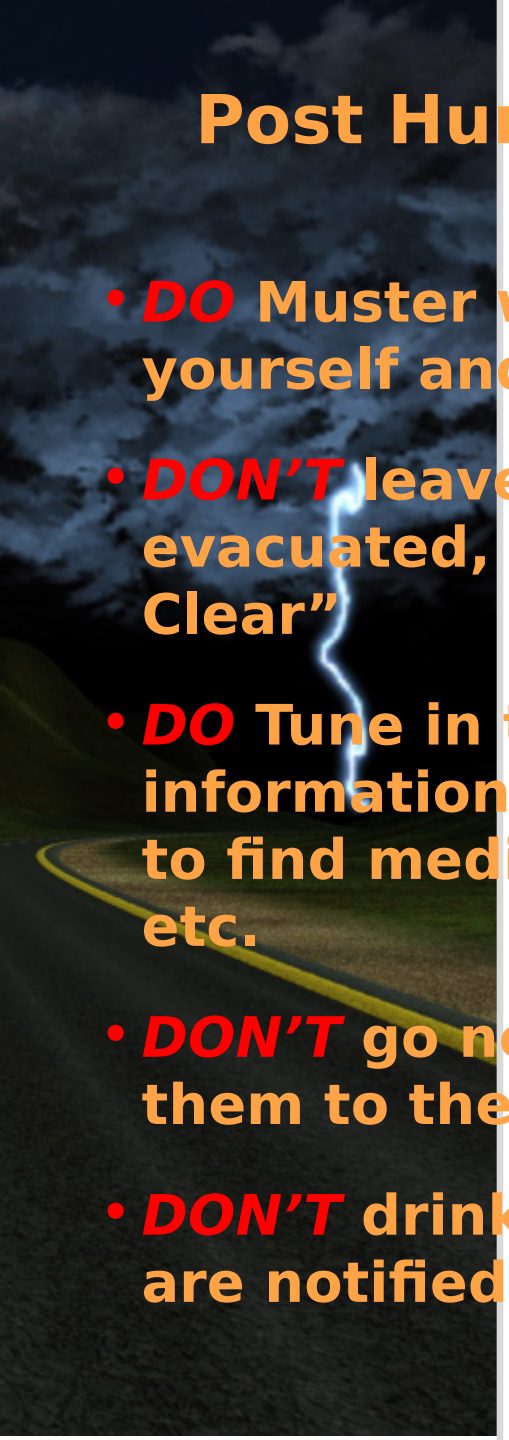
Category 3: 111-13

Category 4: 131-15

Category 5: 156+

Hurricane/Tropical Storm Watch:
Hurricane/Tropical Storm conditions are possible within 48 hours.

Hurricane/Tropical Storm Warning:
Hurricane/Tropical Storm conditions are expected within 36 hours.



Post Hurricane Landfall Do's and Don’ts

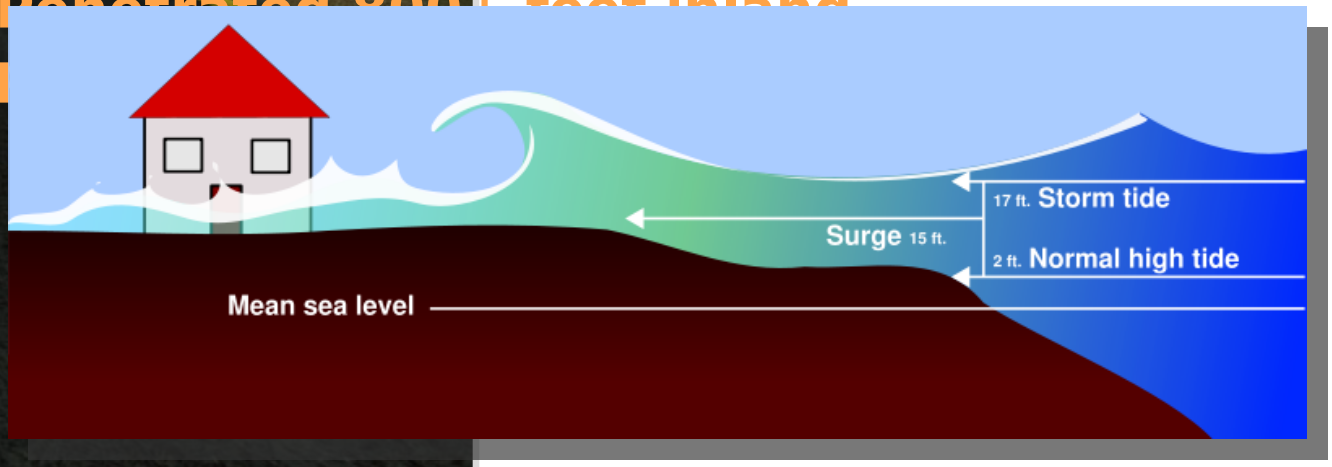
- ***DO*** **Muster with your command/organization for yourself and your family (ADPAAS or AFPAAS).**
- ***DON’T*** **leave a safe location or return if you evacuated, stay there until you receive the “All Clear”**
- ***DO*** **Tune in to local radio and television stations for information about caring for your household, where to find medical help, how to apply for assistance, etc.**
- ***DON’T*** **go near downed power lines and *DO* report them to the power company.**
- ***DON’T*** **drink or prepare food with tap water until you are notified by officials that it is safe to do so.**

Post Hurricane Landfall

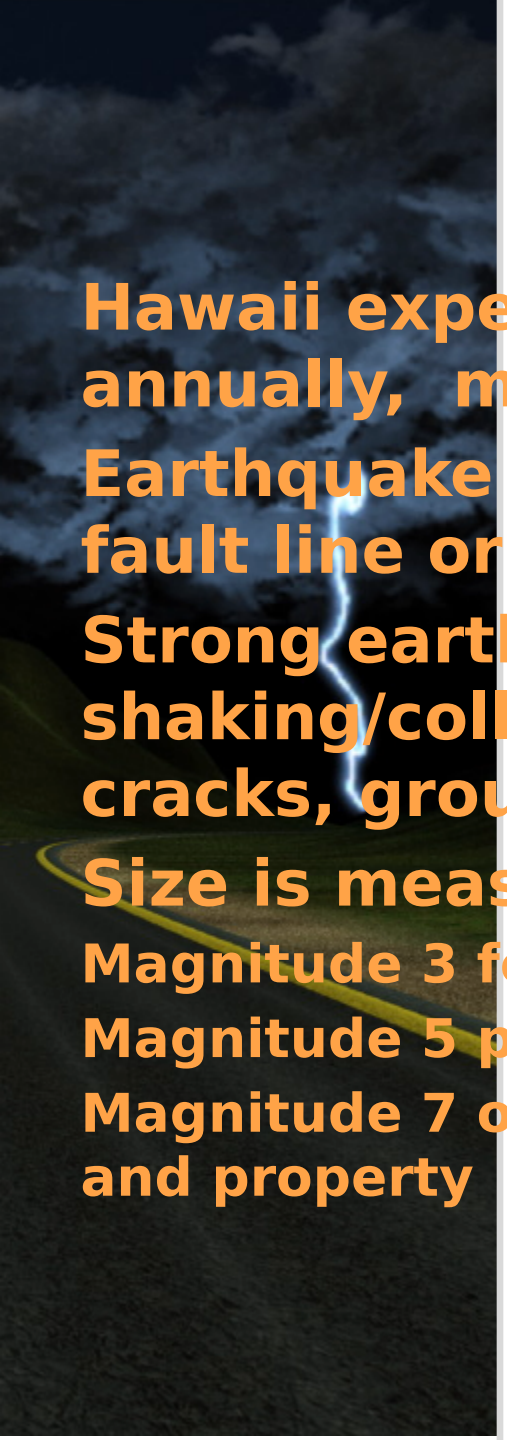
- ***DO*** **Stay away from disaster areas unless authorities request volunteers.**
- ***DON'T*** **Drive unless if it is absolutely necessary, and avoid flooded roads and washed-out bridges.**
- ***DO*** **Check on neighbors and provide assistance and call for help if necessary.**
- ***DON'T*** **Tie-up telephone or cell systems with unnecessary calls reserve the system for emergencies.**
- ***DO*** **Enter your home with caution. Be aware of insects and animals driven to higher ground by the floodwaters and potential pollutants/sewage in floodwaters.**
- ***DO*** **Talk to your children about what happened and what they can do to help.**

Storm Surge/Flood

- Greatest potentially for loss of life
- Caused by hurricane force winds
- Causes severe flooding
- Can increase the tide by 15 feet
- Hurricane Iniki (CAT 4) had an 18’ storm surge
- Penetrated 800+ feet inland
- [illegible]



Earthquake



Earthquakes

- Hawaii experiences thousands of earthquakes annually, most are never felt.
- Earthquake is caused by release of energy at a fault line or movement of volcanic magma
- Strong earthquakes endanger people by shaking/collapsing structures, causing ground cracks, ground settling landslides and Tsunamis
- Size is measured on the Richter Scale
  - Magnitude 3 felt by people near the source
  - Magnitude 5 potentially damaging
  - Magnitude 7 or greater widespread damage to people and property

Earthquakes

PROTECT yourself during the e

DROP under a sturdy table or o

COVER your head and neck

MOVE to high ground as soon as it is safe. Avoid downed power lines and weakened overpasses and if you are outside of a tsunami hazard zone, stay where you are

STAY on high ground. Return to the coast only when officials have announced that it is safe to do so

Tsunami

Tsunami Fact

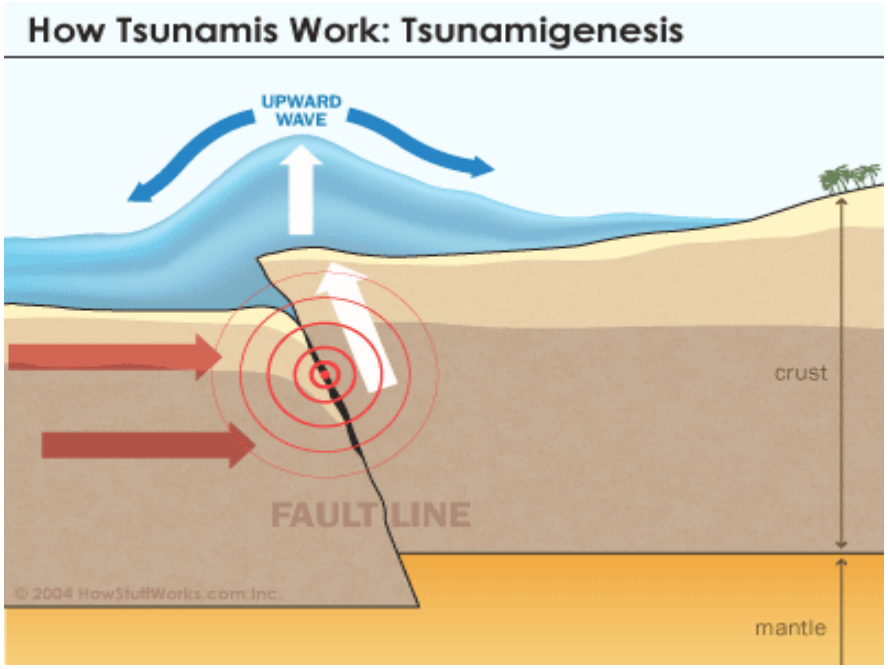
Tsunamis are caused by earthquakes, large landslides or underwater landslides

There are two types of Tsunami; distant and local

This translates to escape time

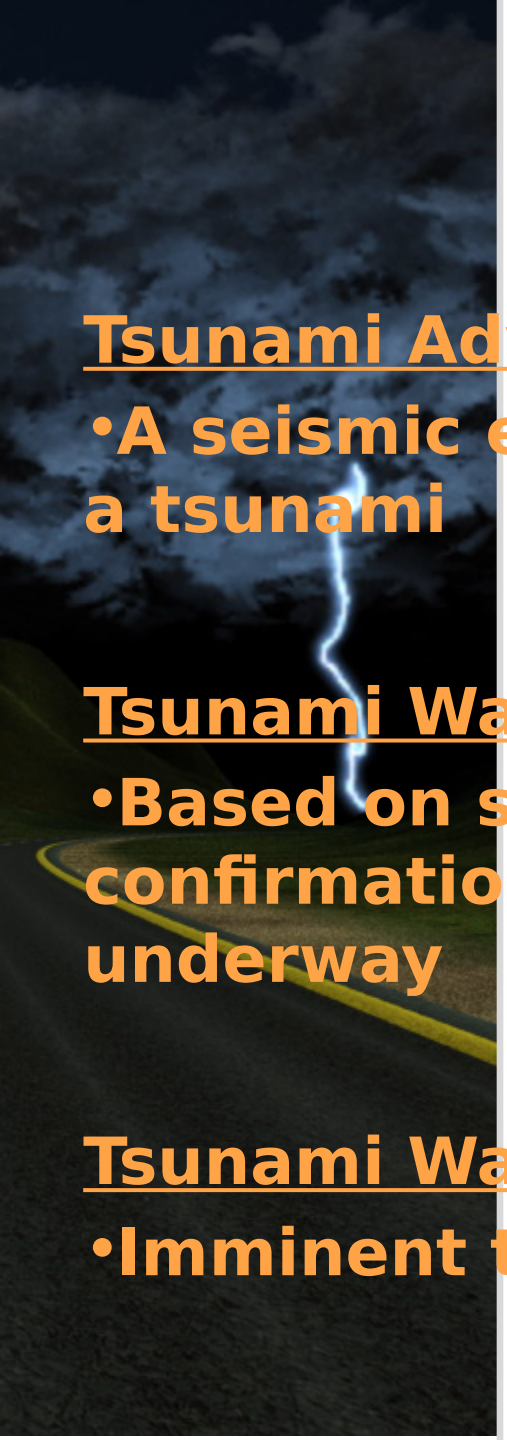
For a distant tsunami, you do not need to evacuate if you are not located above the Evacuation Zone

Tsunami is not a single wave but a series of 5



The first wave is usually not the largest

The most dangerous place to be is at the beach or near lagoons



Notifications

Tsunami Advisory

- A seismic event has occurred that could cause a tsunami

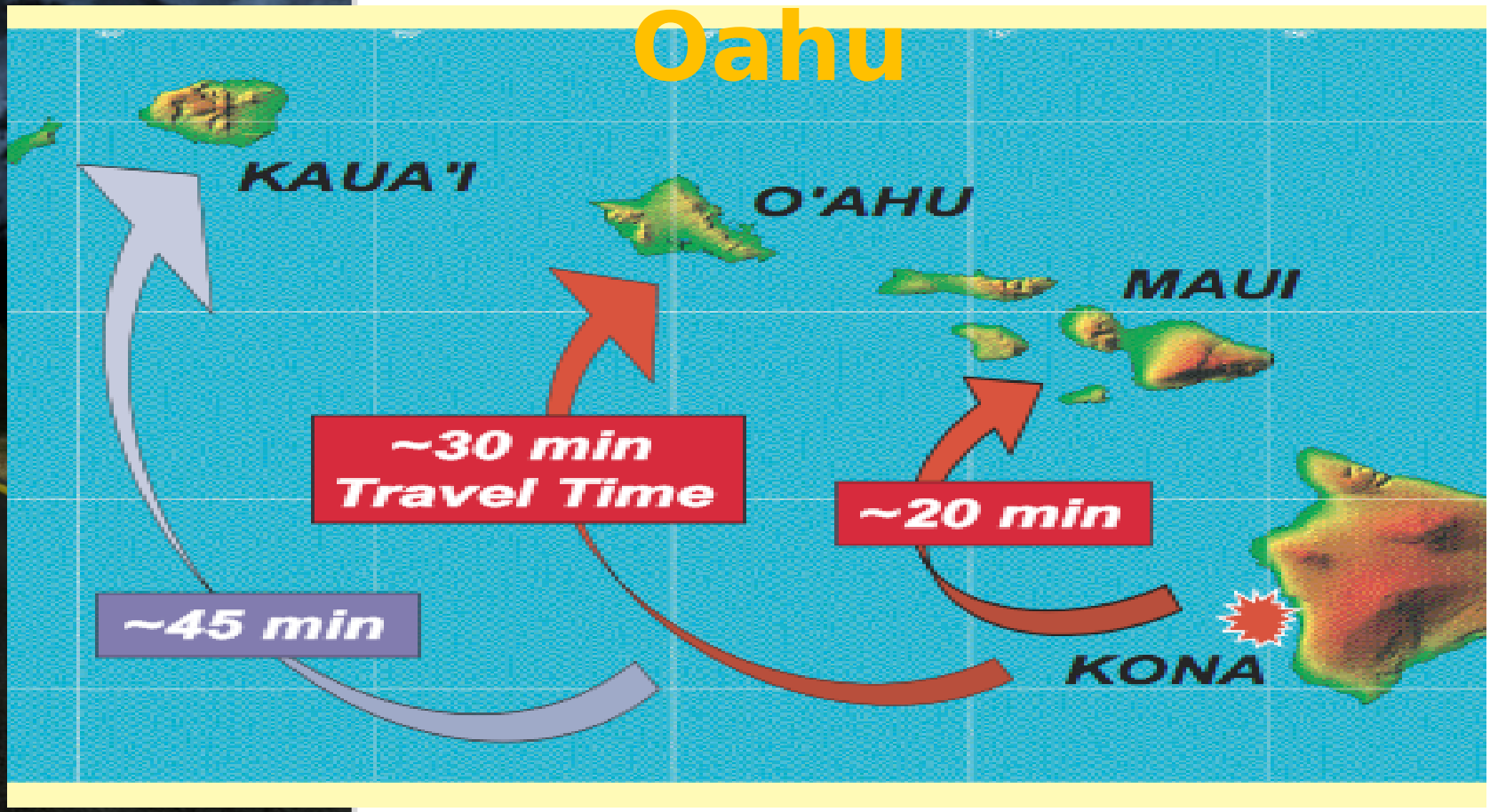
Tsunami Watch

- Based on seismic information without confirmation that a destructive tsunami is underway

Tsunami Warning

- Imminent threat of a tsunami

Local Tsunami Threat: 30 minutes to Waikiki, Oahu



Evacuation Zones

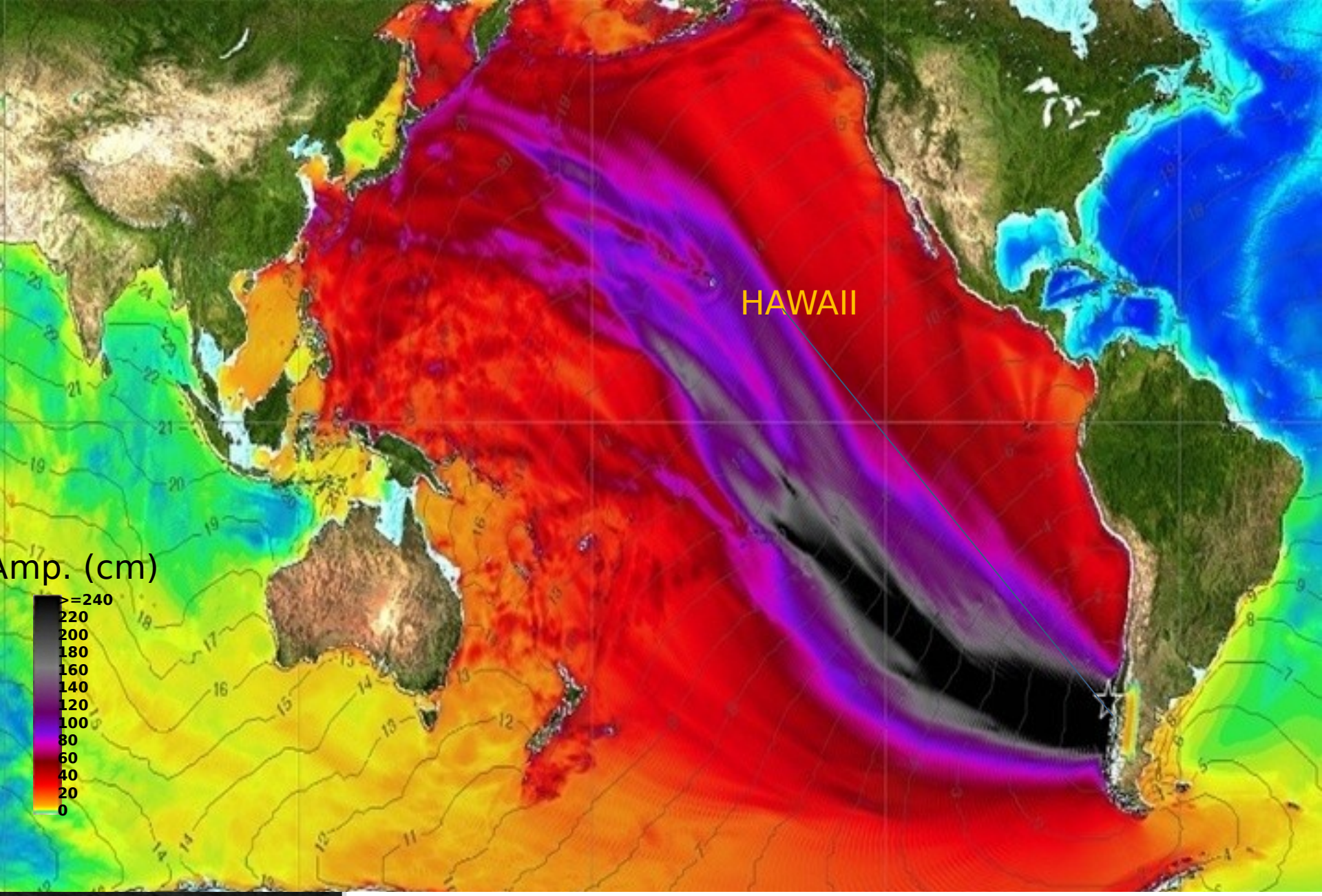
Do you live in an Evacuation Zone?

To view Tsunami Evacuation Zone Maps

Look in your NEW (2012)telephone book or go to:

http://www.scd.hawaii.gov/

You must know before you hear the sirens whether or not you need to evacuate.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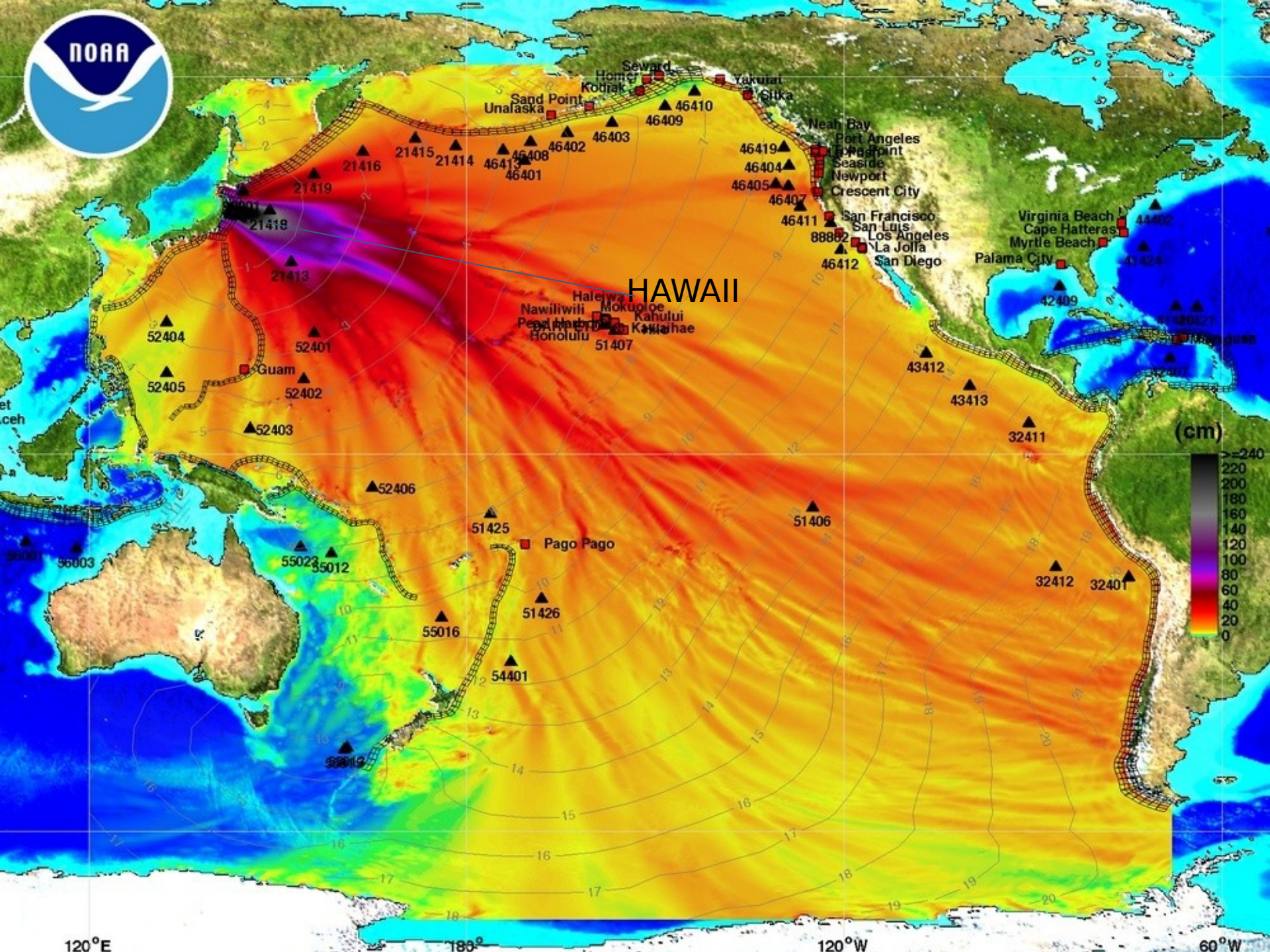
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San Francisco
San Luis
Los Angeles
La Jolla
San Diego
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Virginia Beach
Cape Hatteras
Myrtle Beach
Palama City
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56003
32412
32401
51426
55016
54401
120°E
180°
120°W
60°W

Tsunami Actions

Get to High Ground

Be Aware of where you are

Consider Vertical Evacuation in an urban area

- **Don't try and fight traffic**
- **Go up 6 to 7 floors in tall buildings**

Tornados

- **What is a tornado?**
  - ✓ **Violent windstorm characterized by funnel-shaped cloud**
  - ✓ **Spawned by thunderstorms or a hurricane**

- **Tornado Watch – issued when conditions are favorable to formation of tornadoes**

- **Tornado Warning- tornado has been sighted**

Tornados

Hawaii has experienced 4 tornados in past 3 yrs

Tornados are on Fujita Scale

F0 Winds 40 – 72 mph - Light Damage

F1 Winds 73 – 112 mph – Moderate damage:

F2 Winds 113 – 157 mph – Significant Damage

Tornados

F3 Winds 158- 206 mph
Severe Damage

F4 Winds 204 – 260 mph
Devastating Damage

F5 Winds 261- 318+ mph
Incredible damage

Be Informed

Resources are available

- **Web sites (download plans and info)**
  - www.ready.gov
  - www.scd.hawaii.gov
  - www.hawaiiguardohar
  - https://hi.ng.mil
  - https://afpaas.af.mil
  - www.acsim.army.mil
- **Training courses**
  - CPR/First Aid
  - CERT Course
- **News articles**
- **Radio Stations; Emergency Alert Systems**

Emergency Alert System

Be Informed:
State of Hawaii Shelters

- **State and City & County of Honolulu Shelters**
  - **Locations of all state shelters can be found at http://www.scd.state.hi.us/**
    - **All Schools in State of HI are Shelters**
    - ***NOTE*: Not all schools will be open!**
    - **Specific shelters are set up for special needs populations and to receive pets**
    - **Pets must have supplies and be in hard sided kennel**
  - **Monitor the State CD website and radio/TV for opening times/locations of local shelter as not all schools will open as shelters**
  - **Ensure you bring your Emergency Kit and water with you**

Have a Plan

Family Emergency Plan

Family Communication Plan

Have a plan: Family Readiness

Create a family Emergency Plan

Set up a safe spot in your home, an interior bathroom or under stairs storage area to SIP

Keep a list of emergency phone numbers

Know your child's school plan

Develop an Emergency Kit for work, car, and

Have a Plan: Discuss your options

- Temporarily shelter-in-place
- Evacuate to local shelter
  - Don't wait for the last min
- Move to a safe haven if dire

Have a Communications Plan: Keep in Touch

- Know contact information
- Make emergency contact cards
- Designate an out of state relative as a family focal point so you only have to make ONE call.
- Remember text messages may go through when cell calls will not
- VOIP fails with[out] cable service
- Conduct a dry r[un]

Recommended supplies for basic emergency kit:

- Water- 1 GAL/person/day for at least 7 days
- Nonperishable food for at least 7 days
- Manual can opener
- First aid kit
- Prescription medications
- Dust masks
- Personal sanitation supplies such as moist towelettes, garbage bags, and plastic ties
- Flashlight & extra batteries
- Battery powered or hand crank radio with NOAA Weather channel
- Money - $250 cash (small bills)
- Wrench or pliers to turn off utilities
- Local maps and your evacuation plan
- Family communications plan
- Other plans and any important
- Kits for wo
- Pet supplie

Pre Made Kits

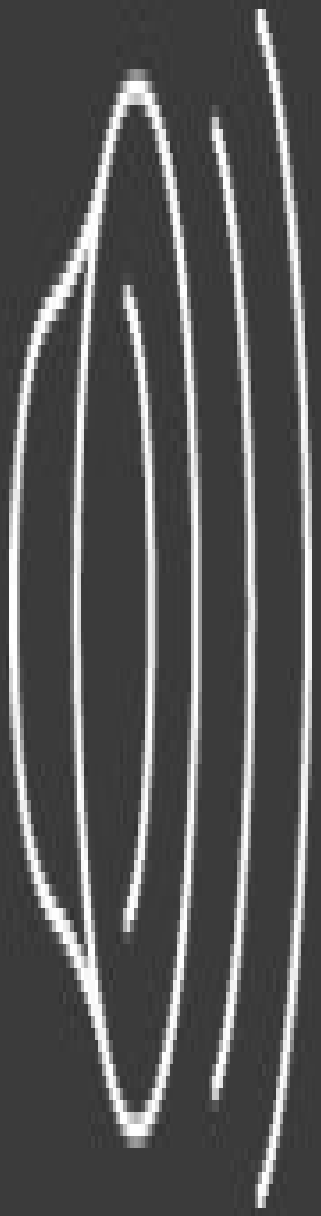
The following companies make pre-stocked and prepared Emergency Kits

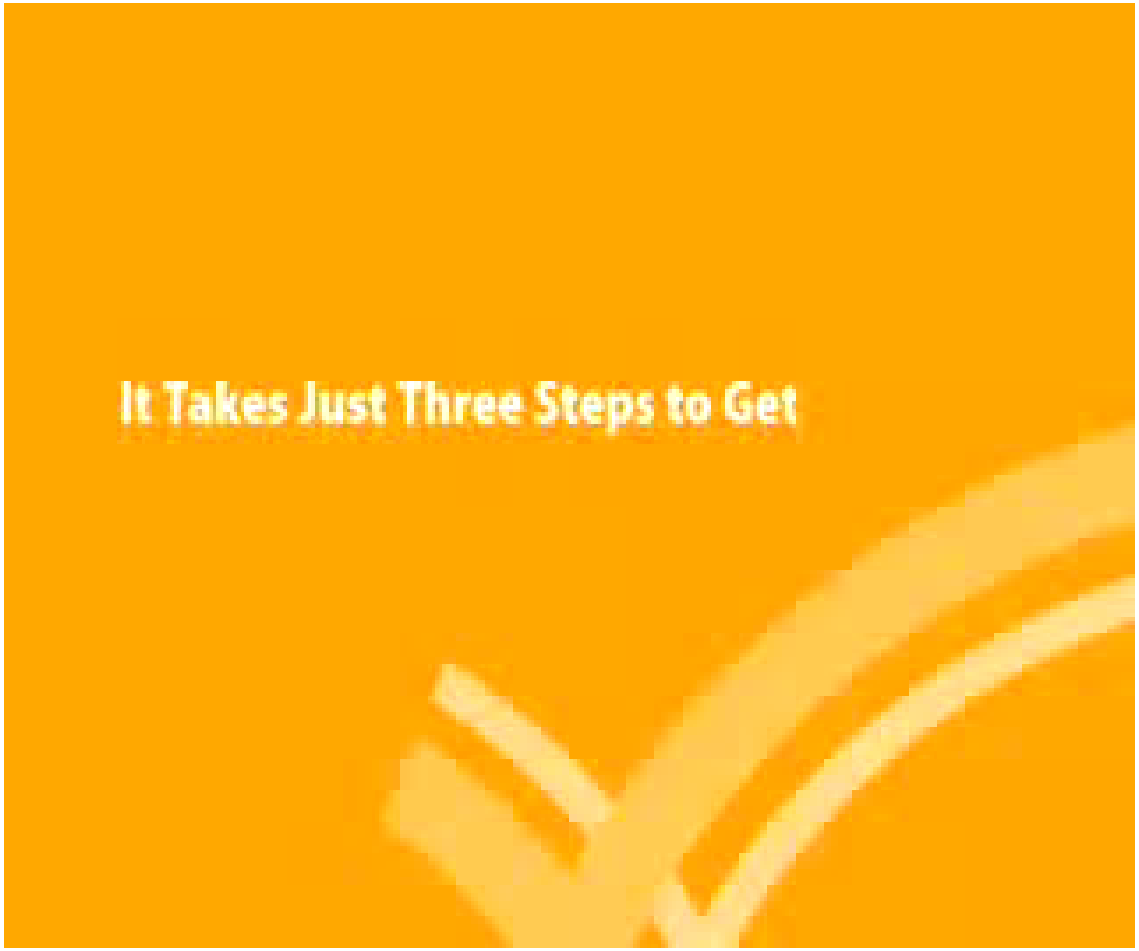
http://www.quakekare.com

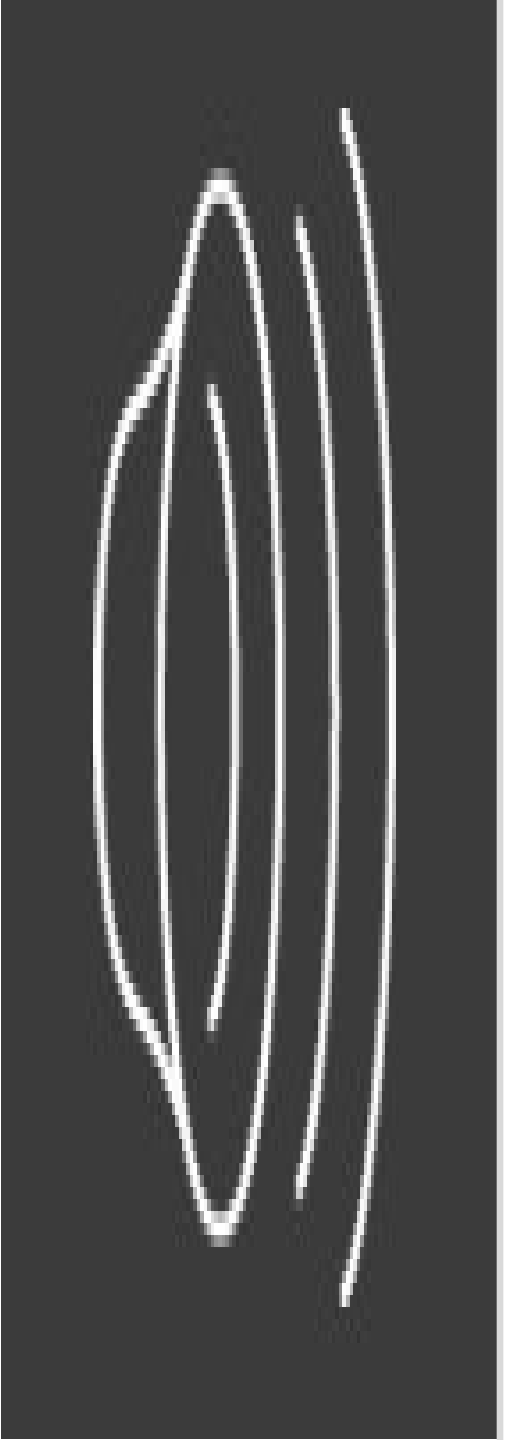
http://www.readysetgokits.com/

http://www.redcrossstore.org/Shopper/Product.aspx?uniqueitemid=3

http://www.survivalkitsonline.com/c/Survival_Kits.html




It Takes Just Three Steps to Get

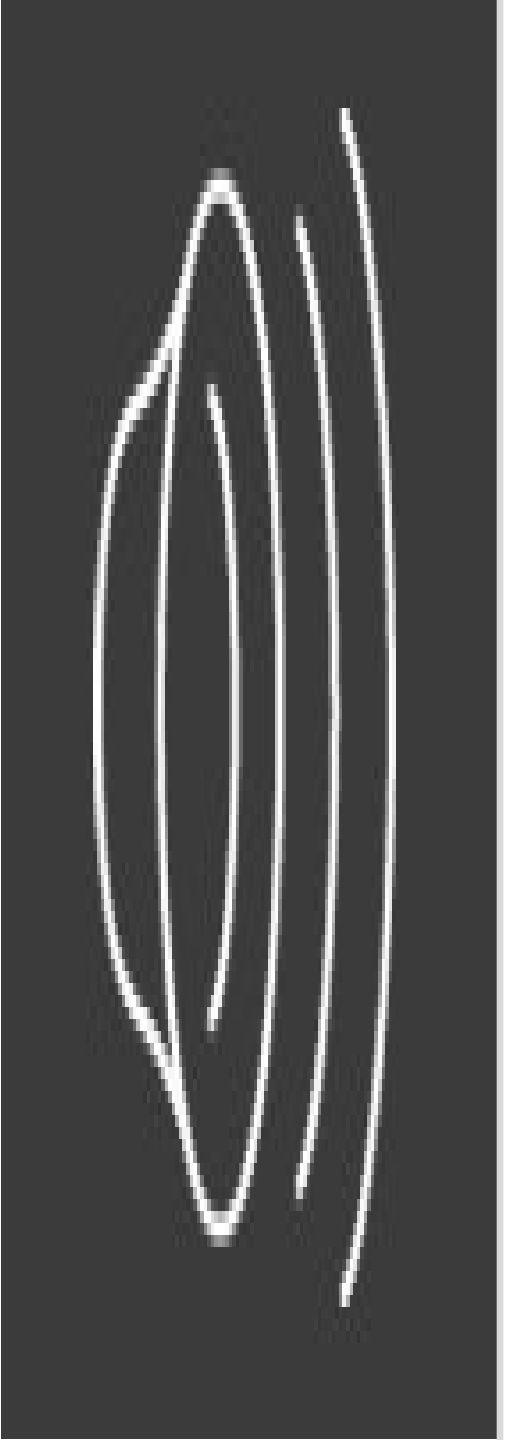


If Disaster Strikes

If you are instructed to take shelter immediately, do so at once.

If you are instructed to evacuate:

- ✓**Listen to the radio or television for the location of emergency shelters and for other instructions from local emergency officials.**
- ✓**Wear protective clothing and sturdy shoes.**
- ✓**Take your disaster supplies kit.**
- ✓**Use travel routes specified by local authorities and don't use shortcuts because certain areas may be impassable or dangerous**



Contact Information

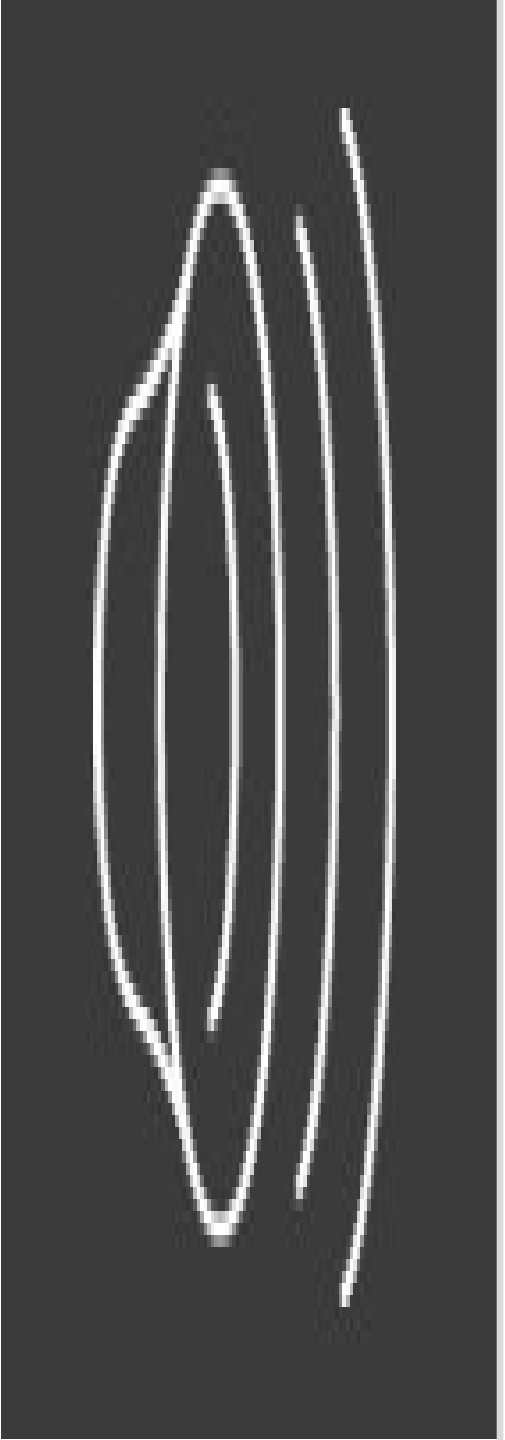
Department of Civil Defense Division, State of Hawaii
3949 Diamond Head Road
Honolulu, HI 96816
(808) 733-4301

City and County of Honolulu Department of Emergency Management
650 South King Street
Honolulu, HI 96813
(808) 723-8960

Kauai County Civil Defense Agency
Suite 100, 3990 Kaana Street
Lihue, Hawaii, 96766
(808) 241-1800

Maui County Civil Defense Agency
200 South High Street
Wailuku, HI 96793-2155
(808) 270-7285

Hawaii County Civil Defense Agency
920 Ululani St.
Hilo, HI 96720
(808) 935-0031, (808) 935-3311 (after hours)

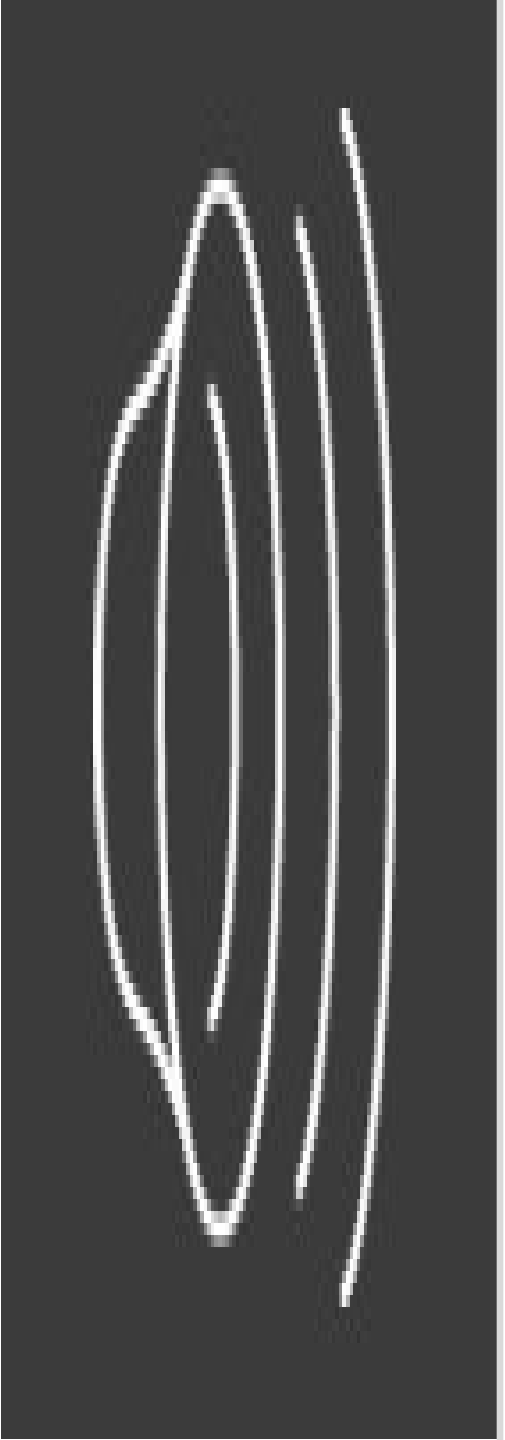


Check on Learning

- What are the three ways to prepare for a natural disaster?
- Be Informed. Have a Plan. Make a Kit

- How long do we recommend that your disaster kit last for a minimum for each person?
- 7 days

- What resources can be used to prepare for natural disasters?



Other Resources

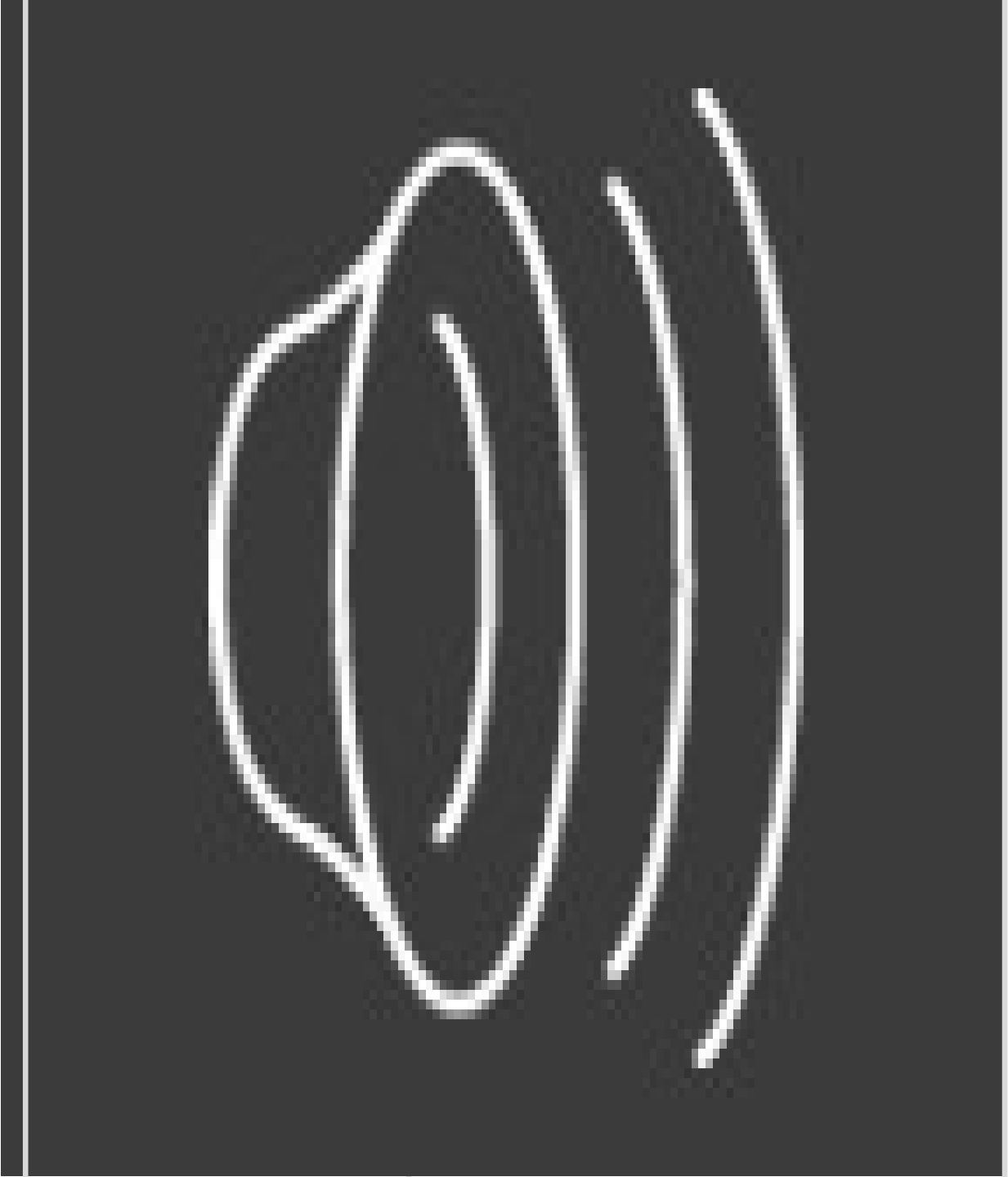
- **Hawaii Red Cross**
  http://hawaiiredcross.org

- **Hawaii Disaster Preparedness**
  http://www.getreadyhawaii.org

- **Hawaii State Civil Defense:**
  http://scd.hawaii.gov

- **Ready.gov**
  http://www.ready.gov

- **State of Hawaii Lt. Gov.**
  http://hawaii.gov/ltgov



BE READY!!
QUESTIONS!